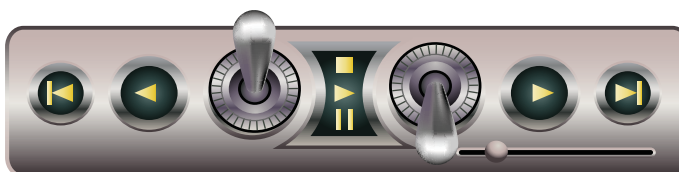


# Flight Surgeon Refresher Course

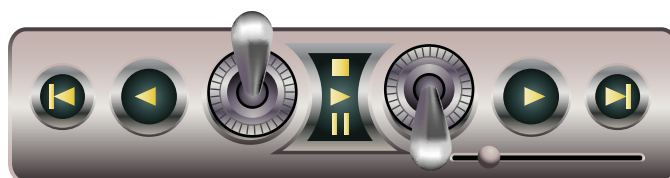
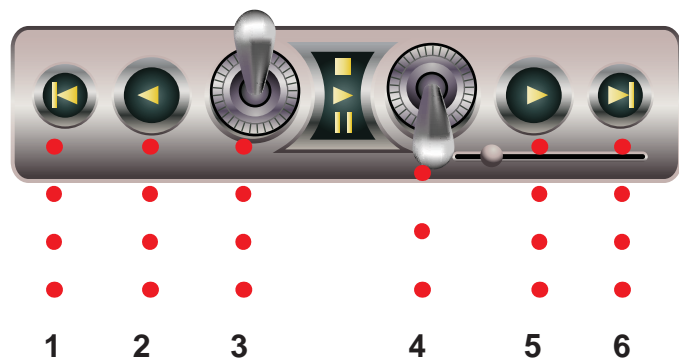
Glossary  
(FSRC1000)



### Navigation Legend for the eBook (onscreen) lessons.

The eBook format has navigation (L to R) to:

1. The first page of the current lesson
2. One page prior (Back)
3. FSRC100 Course Overview
4. Next Lesson (Disabled in Glossary)
5. One page forward (Next)
6. The last page of the current lesson



To find the term you are seeking, click on the first letter of the term or the beginning number of the term

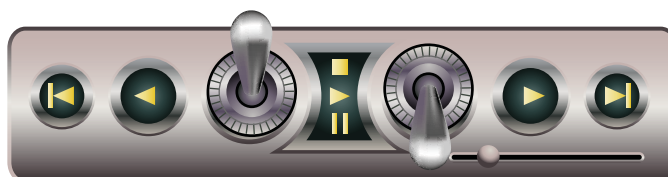
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B	O	2
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D	Q	4
E	R	5
F	S	6
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The first page of terms starting with the letter (or number) selected will appear.

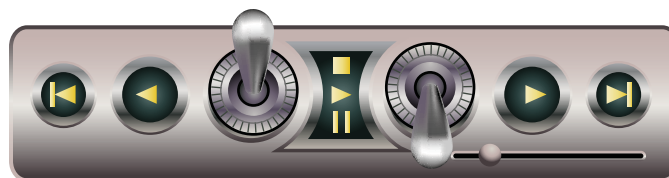
If the entire list of “A” terms (or “B”, “C”, etc) is longer than one page, the Next button on the Navigation console is available at the bottom of the page.

Clicking the Next button will advance to the next page, continuing the alphabetic listing of terms.

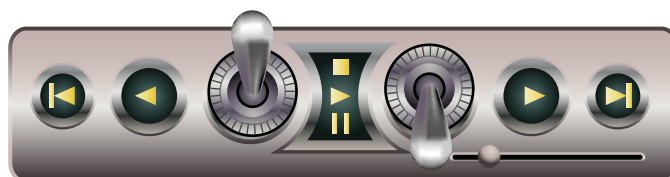
Alternately, the searcher can just start on the first page of the Glossary and press the Next button to go through the entire list of terms one page at a time.



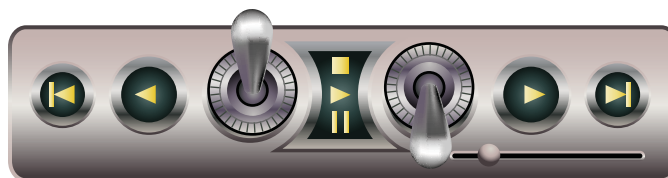
ABG	Arterial blood gas.
Abscess	A localized collection of pus in any part of the body. The result of disintegration or displacement of tissue.
Actinomycosis	A noncontagious bacterial disease in animals and man. Infection may be of the cervicofacial, thoracic, or abdominal regions, or may be generalized.
Acute	Having rapid onset, severe symptoms and a short course; not chronic.
Acute pulpitis	Severe, rapid onset of inflammation of the tooth pulp.
Adjunct	An addition to the principle procedure or course of therapy.
Adrenergic	Relating to nerve fibers that release epinephrine (also called adrenaline), a stimulant in the body.
Aerobic	Living only in the presence of oxygen.
Aerosinusitis	Sinus troubles, particularly with pain, due to changing atmospheric pressures, as when going up or down in a plane. Also called barosinusitis, sinus barotrauma, or paranasal sinus barotrauma.
Air embolism	A condition in which nitrogen bubbles form in fluids and tissues of the body during rapid ascent to high altitudes.
AMA	American Medical Association
Ambient	Relating to the surrounding environment.
Ambient pressure	The atmospheric pressure in the immediate surrounding environment.
Anaerobic	The ability of a life form to perform metabolic processes to sustain life without oxygen.
Anemia	Condition in which there is a reduction in the number of circulating red blood cells per cu. mm; the amount of hemoglobin per 100 ml; or the volume of packed red blood cells per 100 ml of blood. It exists when hemoglobin content is less than that required to provide the oxygen demands of the body.



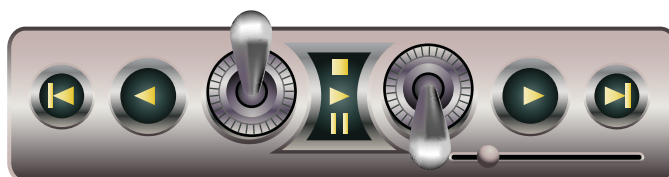
Anesthesia	Partial or complete loss of sensation with or without loss of consciousness as a result of disease, injury, or administration of an anesthetic agent, usually by injection or inhalation.
Anterior triangle of the neck	The area bordered by the anterior aspect of the sternocleidomastoid muscle, the anterior mid-line of the neck, and a line running from the mastoid process of the skull along the lower edge of the mandible.
Arterial blood gases	The sampling of the blood levels of oxygen and carbon dioxide within the arteries, as opposed to the levels of oxygen and carbon dioxide in venous blood. Typically, the acidity, or pH, of the blood is measured simultaneously in ABG sampling.
Arterial gas emboli	Gas bubbles in the arteries.
Arterial gas embolism	A gas bubble in the arteries.
Arterial vasospasm	Spasmodic behavior of the smooth muscle of the arteries.
Ascent	The act or process of rising or going upward.
Asphyxia	Condition caused by insufficient intake of oxygen.
Asymptomatic	Neither causing nor exhibiting symptoms of disease.
ATA	American Telemedicine Association.
Ataxia	Deficient or compromised motor coordination, especially voluntary muscular movements, due to abnormal growth, disease, or injury. Might also be due to a lack of proprioceptive impulses (sensory) from the muscles.
Atmospheres absolute	The sum of the atmospheric pressure and the hydrostatic pressure; the total weight of the water and air above use.
Atmospheric	Produced by, dependent on, or coming from the atmosphere.



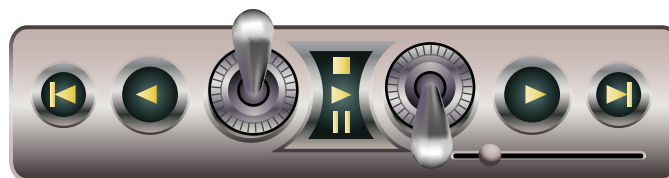
Atmospheric pressure	the pressure exerted by the atmosphere, not merely downwards, but in every direction. air exerts pressure because air has weight, and this weight is pulled toward the earth's center of gravity; this pressure is expressed as atmospheric pressure. Atmospheric pressure at sea level is 14.7 pounds per square inch (psi).
Atrial septal defect	Congenital defect of the heart in which there is an opening between the atria.
Audiometer	An instrument used to test hearing.
Autochthonous	Found where it originated or developed.
Aviation	development and use of aircraft; the design, manufacture, use, or operation of aircraft.
Aviation medicine	medical specialty concerning effects of flying; the branch of medicine concerned with the physical and psychological effects of flying in aircraft. The principal concern is with the stresses applied to the passengers or crew of an aircraft in flight. These stresses can include exposure to extreme temperatures, large inertial forces occurring when an aircraft undergoes acceleration, oxygen deprivation, and air sickness, as well as pilot fatigue and psychological disturbances. As the biological problems of space flight exceed considerable those of atmospheric flight, aviation medicine has become a special branch of space medicine, the latter study has largely absorbed the former.
Barosinusitis	Sinus troubles, particularly with pain, due to changing atmospheric pressures, as when going up or down in a plane. Also called aerosinusitis, sinus barotrauma, or paranasal sinus barotrauma.
Barotitis media	Middle ear problems due to changing atmospheric pressures, as when a plane descends to land. The problems include ear pain, ringing, diminished hearing and, sometimes, dizziness. Also called aerotitis, aerotitis media, barotitis media, and otic barotrauma.
Barotrauma	Any injury caused directly or indirectly by changes in atmospheric pressure.



Barotrauma	An injury caused by a change in atmospheric pressure between a closed space and the surrounding area.
Bell's Palsy	Unilateral facial paralysis of sudden onset. The cause is unknown, but presumed to involve swelling of the seventh (facial) nerve due to immune or viral disease, resulting in ischemia and compression of the nerve at the point where it leaves the body tissue. Characterized by weakness of the entire half of the face, followed by paralysis. The patient cannot control salivation or lacrimation, and in severe cases can not close eye on the affected side. Facial expression is distorted. Named for a scottish physiologist and surgeon, Sir Charles Bell (1774-1842).
Blood brain barrier	The protective vascular barrier between the blood supply and brain tissue which protects the brain from potentially damaging substances that might occur in the blood stream.
Bloodstream	The blood flowing through the circulatory system.
Boyle's Law	a law of physics stated that at a constant temperature, the volume of a gas varies inversely with the pressure.
Brainstem	The central stem of the brain which connects the two cerebral hemispheres to the spinal cord.
Breathing	Act of inhaling and exhaling air.
Brown recluse spider	A venomous spider ( <i>Loxosceles reclusa</i> ) of the U.S. that has a violin-shaped mark on the cephalothorax and produces a dangerous cytotoxin.
Burgomaster	Mayor or chief magistrate of a northern European town.
Cancer	A malignant tumor.
Carbon monoxide	A colorless, tasteless, odorless gas that is widely distributed as a result of imperfect combustion and oxidation.
Carbon monoxide poisoning	A toxic condition resulting from small amounts of carbon monoxide inhaled over a long period of time, or from large amounts inhaled in a short period of time.

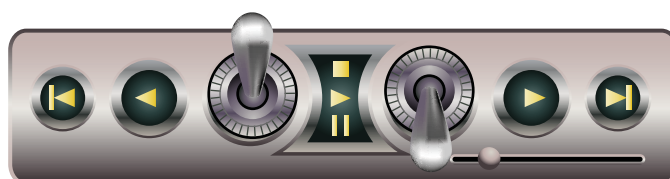


Carbon tetrachloride poisoning	Toxic effects resulting from prolonged inhalation of carbon tetrachloride, a clear colorless liquid resembling chloroform.
Cardiac	Pertaining to the heart.
Cardiac arrest	Sudden cessation of functional circulation.
Cardiopulmonary bypass	Shunting blood flow from the heart and lungs.
Central nervous system	The portion of the vertebrate nervous system consisting of the brain and spinal cord.
Central retinal artery	The blood vessel that carries blood into the eye and supplies nutrition to the retina.
Central retinal artery occlusion	The sudden blockage of the retinal artery with a blood clot that commonly leads to a painless but irreversible blindness in that eye.
Cephalad	Toward the head.
Cerebral	Pertaining to the brain.
Cerebral air embolism	An air bubble located in the cerebral vessels.
Cerebral edema	Swelling of the brain due to an accumulation of fluid in the brain tissue, usually attributable to injury, disease, or abnormal growth.
Cerebral gas emboli	A disorder resulting from obstruction of cerebral blood vessels by gas emboli originating in the lungs, usually due to overinflation of the lungs by expanding pulmonary gas during reduction of surrounding pressure (eg, during ascent from depth in diving) and generally characterized by early loss of consciousness and/or other CNS manifestations.
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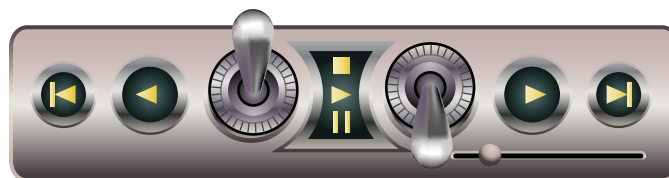




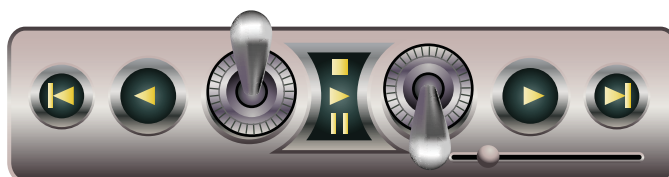
Cerebral ischemia	Inadequate flow of blood to the brain caused by obstruction of the arterial blood supply.
Cholera	An acute infection involving the entire small bowel, producing severe loss of fluids and electrolytes.
Chronic	A condition showing little change or slow progression, the opposite of acute.
Circulatory	Of or relating to circulation; relating to circulatory system or to circulation of the blood.
Circulatory arrest	Cessation of cardiovascular system function.
Circulatory system	The bodily system consisting of the heart, blood vessels, and blood that circulates blood throughout the body, delivers nutrients and other essential materials to cells, and removes waste products. Also called cardiovascular system.
Closed head injury	Injury of the head due to trauma limited to the interior of the head and/or brain and related structures.
Clostridial myonecrosis	Gas gangrene; an acute, rapidly progressive, non-pyogenic, invasive infection of the muscles, characterized by profound toxemia, extensive edema, massive death of tissue, and a variable degree of gas production.
CNS	Central nervous system.
CO	Carbon monoxide
Cochlea	Trauma to the middle ear, commonly found in aircrew members who breathe 100% oxygen during flight. The mucosal lining of the middle ear slowly absorbs oxygen after flight, creating negative pressure within the middle ear. This condition, combined with a swollen or blocked Eustachian tube, has the potential to inflict trauma upon the tympanic membrane (eardrum) and create a significant amount of discomfort. Symptoms often develop as late as 12 hours after discontinuing supplemental oxygen.



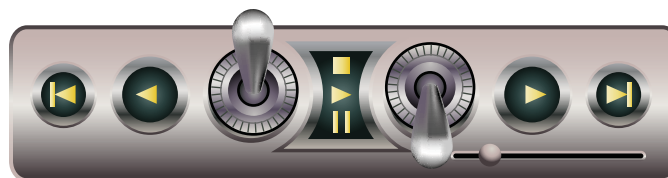
Compartment syndrome	An increased pressure within a confined space that leads to microvascular compromise and ultimately to cell death. As pressure increases, the pressure cannot be released because of confining elements, such as fascia, so instead of swelling out, it swells in, and cuts off the circulating blood supply, leading to tissue death.
Complex	The combination of factors, symptoms, or signs of a disease or disorder that forms a syndrome.
Compression	The act of compressing, or state of being compressed; applying pressure.
Conjunctivitis	Inflammation of the conjunctiva, the mucous membrane that lines the eyelids.
Contraction	The process or result of becoming smaller or pressed together.
Convulsions	Sudden attacks of involuntary muscular contractions and relaxations.
COPD	Chronic Obstructive Pulmonary Disorder. Disease that progresses into decreased ability for the lungs to ventilate.
Coronary	Pertaining to, or relating to the arteries that supply the heart muscle.
Cortical	Pertaining to a cortex, such as the cerebral cortex of the brain.
Crush injury	An injury caused by direct trauma or pressure. Damage related to crush injury can include laceration (open wound), fracture, bleeding, bruising and others.
Cutaneous	Pertaining to skin.
Cutis marmorata	The bluish or purplish marbling discoloration of the skin when exposed to cold temperatures.
Cyanosis	A slightly bluish, grayish, slate-like or dark purple discoloration of the skin due to the presence of abnormal amounts of reduced hemoglobin in the blood.



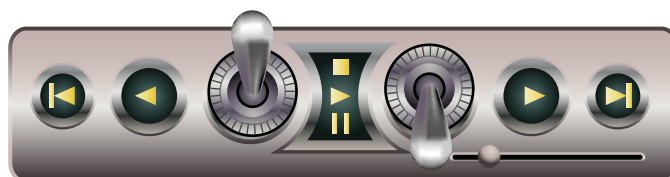
Cyst	A walled, closed sac or compartment containing fluid, solid tissue, or foreign matter which may be the result of disease, abnormal growth, parasitic infection, or an obstructed duct.
Cystoid macular edema	A painless disorder which affects the central retina (the light sensitive membrane in the back of the eye) or macula. Multiple cyst-like (cystoid) formations appear in the macula and cause retinal swelling or edema.
DCS	Decompression sickness. A condition that develops in divers after coming to the surface following exposure to compressed air; caused by nitrogen bubbles in the tissue spaces.
Deafness	A complete or partial loss of the ability to hear.
Decompression	The act or process of decompressing; relieving pressure.
Decompression chamber	A compartment in which atmospheric pressure can be gradually raised or lowered, used especially in readjusting divers or underwater workers to normal atmospheric pressure or in treating decompression sickness.
Decompression sickness	A condition that develops in divers after coming to the surface following exposure to compressed air; caused by nitrogen bubbles in the tissue spaces.
Delayed barotitis media	A condition that develops usually hours after oxygen assisted flight, in which oxygen is slowly absorbed and accumulated in the mucosal lining of the middle ear chamber. This produces negative pressure that causes the tympanic membrane to recede and stretch into the middle ear, always producing pain and sometimes resulting in trauma to the membrane. This condition most often occurs during sleep when typically the eustacian tube is closed for long periods of time. Also known as middle ear oxygen absorption syndrome.



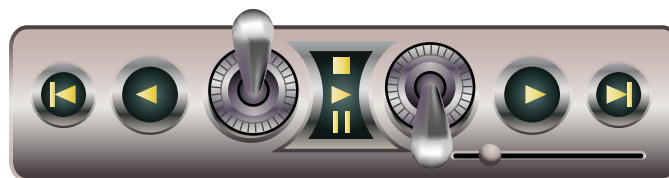
Denitrogenate	Removing nitrogen from the body's tissues in preparation for the reduced barometric pressures encountered during flight. Denitrogenation is usually accomplished by breathing 100% oxygen for a period of time determined by the anticipated degree of barometric pressure reduction.
Diabetes mellitus	A disease caused by inadequate production or utilization of insulin; characterised by excessive urination.
Diameter	The length of a straight line through the center of an object.
Differential	Relating to or showing a difference.
Digestion	The processes by which food is broken down mechanically and chemically in the digestive tract and converted into absorbable forms.
Diplopia	Double vision.
Dissolve	To pass into solution, to become liquid, or to melt from a solid to a gas or liquid.
Dive medicine	A specialty in medicine that is concerned with the affects and adversity of physiological conditions and the treatment of injury related to the result from the exposure of the body to diving.
DNIF (Duties Not Including Flight)	An aircrew member is NOT qualified to perform aviation duties (i.e. does NOT meet the aeromedical standards for aviation service IAW AR40-501 and the APL's)
Domicilium	An airtight room designed to be pressurized with compressed air. It was the first hyperbaric chamber, built in 1650.
Dysfunction	Abnormal or impaired functioning, especially of a bodily system.
Ear	The vertebrate organ of hearing, responsible for maintaining equilibrium as well as sensing sound and divided in mammals into the external ear, the middle ear, and the inner ear.



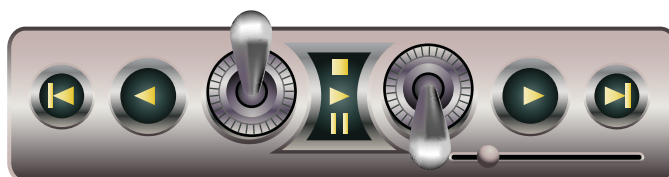
Ear barotrauma	Ear problems due directly or indirectly to changing atmospheric pressures, as when a plane descends to land. The problems include ear pain, ringing, diminished hearing and, sometimes, dizziness. Also called aerotitis: aerotitis media, barotitis, barotitis media, or Otic barotrauma.
Edema	An abnormal accumulation of fluid in the body tissues or in the body cavities causing swelling or distention of the affected parts.
EEG	Electroencephalogram; the recording obtained from an electroencephalograph, an instrument which analyzes electrical potential between various electrodes placed on the scalp in order to determine the nature of brain wave patterns. Used primarily in studying epilepsy, convulsive disorders, and in detecting brain lesions.
Endothelium	Squamous epithelial cells that line lymph and blood vessels. These cells produce various compounds which affects platelets, and the constriction and/or dilation of the vascular lumen.
Endotracheal tube	A catheter inserted into the pharynx and trachea to provide an airway.
Environment	The circumstances or conditions that surround one; surroundings.
Epidural	Located on or above the dura of the brain or spinal cord.
Equilibrium	A condition in which all acting influences are canceled by others, resulting in a stable, balanced, or unchanging system.
Etiology	The study of origins and causes of disease and injury.
Eustachian tube	The hollow pathway that connects the middle ear to the nasopharynx (the back of the nose and upper throat). The eustachian tube helps equalize pressure in the ear.
Exhale	To breathe out.
External auditory canal	The passage from the outer ear (auricle) to the tympanic membrane (eardrum).



FFD (Full Flying Duties)	Aircrew member is qualified to perform aviation duties (i.e. meets the aeromedical standards for aviation service IAW AR40-501 and the APL's)
Fibrin	A protein that is formed due to the clotting process of blood. Upon injury, the protein thrombin is introduced at the site of injury by surrounding cells and consequently acts on the protein fibrinogen to form the filamentous fibrin fibers. These fibers form the basis of blood coagulation by trapping red blood cells (erythrocytes), white blood cells (leukocyte), and platelets.
Fluid resuscitation	The correction of fluid volume imbalances; a nursing intervention classification defined as administering prescribed intravenous fluids rapidly.
Flying Duty Performed	Any member on flight status as listed in AR 600-105 and AR 600-106 (e.g. Flight Student, Pilot, FS, APA, Medical Student, Aeromedical Psychologist, Aeromedical Optometrist, Flight Nurse, Flight Medic, Crew Chief, Flight Engineer, Flight Steward, UAV Operator, Air Traffic Controller)
Focal ischemia	Ischemia limited to a particular region of tissue caused by obstruction of the primary arterial blood supply. Depending on the duration of the obstruction, permanent tissue damage might or might not occur.
Foramen ovale	An opening between the atria in the fetal heart which, upon birth and ventilation of the lungs, closes due to biochemical reactions in the blood.
Formication	This form of paresthesia is the sensation of insects crawling on the skin. Often a side effect of cocaine withdrawal.
Gas	A substance in the gaseous state.
Gas bubble	A globular body of gas formed within a liquid.
Gas embolism	A gas bubble located in the veins, capillaries, right atrium or ventricle.

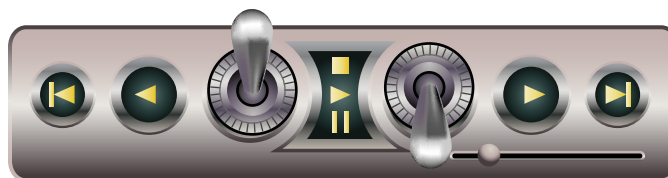


Gas gangrene	Clostridial myonecrosis; an acute, rapidly progressive, non-pyogenic, invasive infection of the muscles, characterized by profound toxemia, extensive edema, massive death of tissue, and a variable degree of gas production.
Gastrointestinal tract	Tubular passage of mucous membrane and muscle extending about 8.3 meters from mouth to anus; functions in digestion and elimination.
Gray matter	(Substantia grisea) The gray regions of the central nervous system which is composed mostly of the neuron cell bodies rather than their myelinated processes.
Ground run-up duty	Starting engines and performing a series of checks on the aircraft, short of actually taking off
HBO	Hyperbaric oxygen.
Hemiparesis	A neurological condition of paralysis of one half of the body bilaterally due to cerebral hemorrhage, thrombosis, embolism, or tumor. Symptoms include patient's personal neglect of the debilitated half, and disturbed visual perception due to the effect on the parietal lobe of the brain. Also known as hemiplegia.
Hemiplegia	A neurological condition of paralysis of one half of the body bilaterally due to cerebral hemorrhage, thrombosis, embolism, or tumor. Symptoms include patient's personal neglect of the debilitated half, and disturbed visual perception due to the effect on the parietal lobe of the brain. Also known as hemiparesis.
Hemodilution	An increase in the percentage of blood plasma, reducing the concentration of erythrocytes (red blood cells).
Hemodynamic	Forces involved in circulation blood throughout the body.
Hemorrhage	Pertaining to internal or external bleeding.



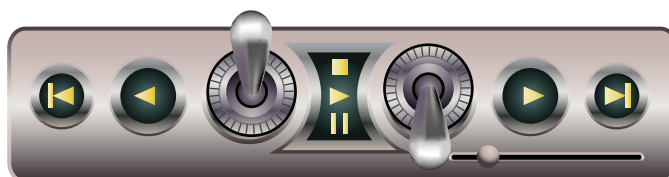


Henry's Law	The solubility of a gas in a liquid depends on temperature, the partial pressure of the gas over the liquid, the nature of the solvent and the nature of the gas. The most common solvent is water. Gas solubility is always limited by the equilibrium between the gas and a saturated solution of the gas. The dissolved gas will always follow Henry's law. The concentration of dissolved gas depends on the partial pressure of the gas. The partial pressure controls the number of gas molecule collisions with the surface of the solution. If the partial pressure is doubled the number of collisions with the surface will double. The increased number of collisions produce more dissolved gas.
Heterogeneous	Consisting of dissimilar elements or parts; not homogeneous.
Hydrogen sulfide poisoning	Exposure to a poisonous, flammable, colorless compound with a characteristic odor of rotten eggs.
Hydrostatic pressure	Ascending above sea level the atmospheric pressure decreases because of the amount of air at higher altitudes weighs less. Diving below sea level, the opposite occurs (the pressure increases) because water has weight greater than air. Thus the deeper the decent under water, the greater the pressure. This pressure is called hydrostatic pressure.
Hyperbaric	Increased atmospheric pressure.
Hyperbaric chamber	An enclosed space in which gas (oxygen) can be raised to greater than atmospheric pressure.
Hyperbaric medicine	Medical specialty concerning treatment under high pressure: medical treatment for conditions such as heart and lung disorders and decompression sickness in which the whole body is exposed in a pressure chamber.
Hyperbaric oxygen therapy	Breathing 100 percent oxygen at a pressure greater than sea level for a prescribed periods of time, usually sixty to ninety minutes.
Hypertension	A condition in which the patient has a higher blood pressure than that judged to be normal.

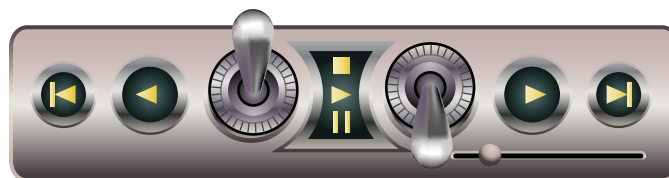




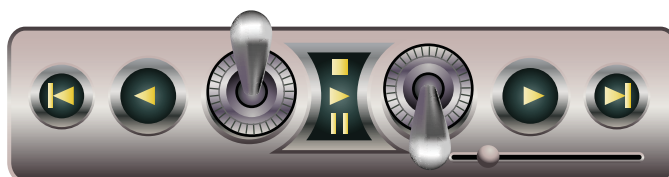
Hypobaric	Decreased atmospheric pressure.
Hypothesis	A tentative explanation for an observation, phenomenon, or scientific problem that can be tested by further investigation.
Hypoxia	A concentration deficiency of inspired oxygen in the body.
Hypoxic	A condition in which the patient has a deficiency of oxygen.
Implode	To collapse inward; from external pressure.
Implosive	The act of collapsing inward; from external pressure.
Incus	Articulating with the malleus and the stapes, the incus (also called the anvil) is the middle of the three small bones in the middle ear that transmit vibration from the tympanic membrane to the oval window of the inner ear.
Infarction	An organ or tissue that undergoes necrosis due to inadequate or an absence of a blood supply, usually the result of the occlusion of an artery.
Infection	The state or condition in which the body or part of it is invaded by a microorganism or virus which multiplies and produces injury.
Injury	Harm or damage that is done or sustained.
Inspiration	The act of drawing in, especially the inhalation of air into the lungs.
Intra-abdominal	Within the abdomen.
Intra-cranial	Within the cranial cavity.
Intrapulmonary	Pertaining to locations within the structures of the lungs.
Ischemia	Local and temporary deficiency of blood supply due to an obstruction of the circulation to a body part.
Ischemic hypoxia	An absence or low level of dissolved oxygen in an organ or tissue due to the deficiency of the blood supply due to an obstruction of the arterial blood supply to the body part.



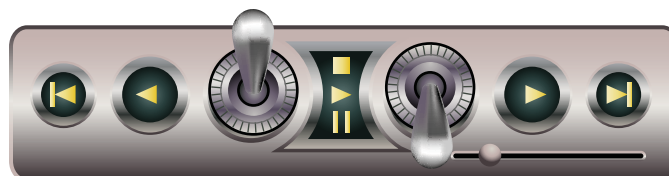
Joint	A point of articulation between two or more bones, especially such a connection that allows motion.
Laryngitis	Inflammation of the larynx resulting in hoarseness and occasional pain.
Larynx	The part of the respiratory tract between the pharynx and the trachea, having walls of cartilage and muscle and containing the vocal cords enveloped in folds of mucous membrane.
Leprosy	A chronic communicable disease caused by the acid-fast <i>Mycobacterium leprae</i> . The two principle clinical forms of leprosy are lepromatous and tuberculoid.
Leukocyte	A white blood cell (WBC) or corpuscle.
Leukocyte-mediated ischemia-reperfusion	A proposed condition resulting from the ischemia that is secondary to the return of normal perfusion following a stroke, surgery or thrombolysis. It is proposed that the sudden return of blood flow to damaged tissue can result in additional injury due to imbalances in calcium homeostasis, free radical generation, or leukocyte-mediated injury. It is hypothesized that an inflammatory-immunologic cascade facilitates the aggregation of erythrocytes and leukocytes because of increased endothelial permeability and increased expression of cell adhesion molecules. The mechanisms behind this process are still unclear but are thought to be antagonized by the use of hyperbaric oxygen.
Liebermeister's sign	A sharply defined pale mottling on the tongue. A possible sign of a cerebral air embolism as a result of decompression sickness.
Liquid	The state of matter in which a substance exhibits a characteristic readiness to flow, little or no tendency to disperse, and relatively high incompressibility.
Localized	To confine or restrict to a particular locality: localized the infection.
Lungs	Organs of respiration.



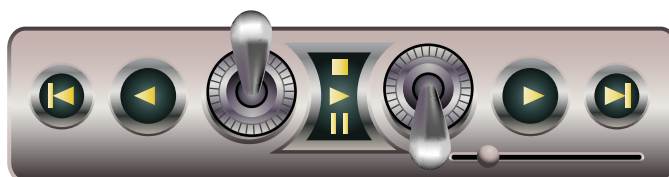
Lymph node	Any of the small bodies located along the lymphatic vessels, particularly at the neck, armpit, and groin, that filter bacteria and foreign particles from lymph fluid. During infection, lymph nodes may become swollen with activated lymphocytes. Also called lymph glands.
Malleus	Articulating with the tympanic membrane and the incus, the malleus (also called the hammer) is the outermost of the three small bones in the middle ear that transmit vibration from the tympanic membrane to the oval window of the inner ear.
Manifestation	An indication of the existence, reality, or presence of something: A high fever is an early manifestation of the disease.
Marfan's syndrome	A hereditary disorder of the structural components of the body, primarily skeletal structures and connective tissue, which results in a lanky stature with elongated limbs, fingers, and toes with unusual joint flexibility, and a stooped posture with flat feet. The aorta is susceptible to weakening and may allow an aneurism to develop.
Mechanism	A usually unconscious mental and emotional pattern that shapes behavior in a given situation or environment: a defense mechanism.
Mediastinum	The region in the chest between the two lungs in which resides the esophagus, trachea, posterior aspect of the heart and related vessels, anterior aspect of the thoracic vertebral column, and central thoracic related structures.
Mesenteric thrombosis	Formation of a blood clot within the vasculature of the mesentery, a peritoneal fold encircling the greater part of the small intestines and connecting the intestines to the posterior abdominal wall.
Middle ear	The hollow cavity of the ear containing the ossicles of the ear (malleus, incus, and stapes) - small bones that transmit vibrational sound energy from the tympanic membrane to the inner ear sensory structures.
Middle ear	The space between the eardrum and the inner ear that contains the three auditory ossicles, which convey vibrations through the oval window to the cochlea. Also called tympanum.



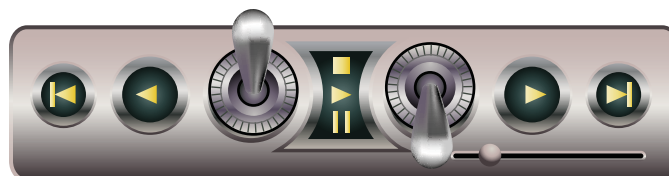
Middle ear barotrauma	Damage to structures of the middle ear and/or tympanic membrane caused directly or indirectly by changes in atmospheric pressure.
Mobile hyperbaric chamber	A hyperbaric chamber capable of being moved readily.
Molecule	The smallest particle of a substance that retains the chemical and physical properties of the substance and is composed of two or more atoms; a group of like or different atoms held together by chemical forces.
Monoplace hyperbaric chamber	A hyperbaric chamber capable of treating a single patient.
Monoplegia	Regional paralysis involving a group of muscles or a limb.
Mucosa	A membrane lining all body passages that communicate with the air, such as the respiratory and alimentary tracts, and having cells and associated glands that secrete mucus. Also called mucous membrane.
Mucosal	A membrane lining all body passages that communicate with the air, such as the respiratory and alimentary tracts, and having cells and associated glands that secrete mucus. Also called mucous membrane.
Mucus	Functioning as a lubricant and protectant, mucus is secreted fluid from glands and mucous membranes, primarily from goblet cells. Mucus typically consists of water, mucin, leukocytes, epithelial cells, and cell fragments.
Multiplace hyperbaric chamber	A hyperbaric chamber capable of treating multiple patients simultaneously.
Muscle	A contractile organ consisting of a special bundle of muscle tissue, which moves a particular bone, part, or substance of the body.
Myelin sheaths	Schwann cells and oligodendrocytes form spiralled sheaths that wrap around neuron extensions which acts as electrical insulators to increase the velocity of electrical impulses along the neuron's surface.



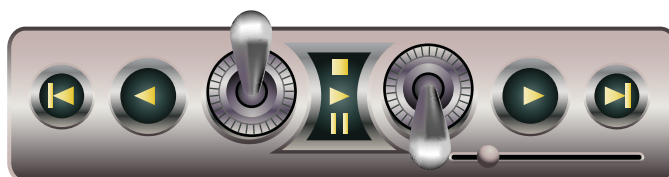
Myocardial ischemia	Inadequate blood flow to the heart muscle. The condition leads to myocardial infarction (heart attack) if left untreated.
Myringotomy	A surgical procedure involving an incision in the eardrum to allow pressure to equalize and fluid to drain.
Nasal	Of, in, or relating to the nose.
Nasopharynx	The part of the pharynx above the soft palate that is continuous with the nasal passages at the back of the nose and the upper throat.
Necrosis	Death in mass of an area of tissue or bone, surrounded by healthy parts.
Necrotizing fasciitis	Death of fibrous tissue due to insufficient blood supply, physical agents or chemical agents.
Needle thoracentesis	A catheter inserted into the pharynx and trachea to provide an airway.
Neuropraxia	A condition in which, due to trauma, a nerve no longer conducts even though the anatomic continuity of the nerve is not interrupted.
Nitrogen	A nonmetallic element that constitutes nearly four-fifths of the air by volume, occurring as a colorless, odorless, almost inert diatomic gas.
NOAA	National Oceanic and Atmospheric Administration.
Observation	The act of noting and recording something, such as a phenomenon, with instruments.
Occlusion	An obstruction or a closure of a passageway or vessel.
Oncology	The specialty of medicine concerned with tumors and abnormal cell growth.
Osteomyelitis	Inflammation of the bone, especially the bone marrow, caused by a pathogenic organism.
Osteonecrosis	Generalized death of bone tissue.
Osteoradionecrosis	Death of bone following irradiation.



Ostia	Small openings or orifices, as in a body organ or passage.
Ostium	A small opening or orifice, as in a body organ or passage.
Oval window	A membrane covered point of contact between the base of the stapes of the middle ear and the sensory apparatus of the inner ear. The mechanical stimulus derived from the vibration of the tympanic membrane to the ossicles of the ear is conducted through the oval window to the cochlea.
Oxygen	A colorless, odorless, tasteless gas which is essential to respiration of most forms of animal and plant life.
Pain	An unpleasant sensation occurring in varying degrees of severity as a consequence of injury, disease, or emotional disorder.
Paralysis	Loss or impairment of the ability to move a body part, usually as a result of damage to its nerve supply.
Paranasal sinuses	Accessory nasal sinuses that open into the nasal cavities. They are the frontal, ethmoidal, sphenoidal, and maxillary. All are lined with a ciliated mucous membrane continuous with that of the nasal cavities.
Paresthesia	Abnormal sensation, often described as numbness, prickling, or tingling, usually felt along the extremities.
Peripheral nerve	Nerves which are located outside of the central nervous system, including all of the cranial nerves, spinal nerves and their branches to the entire body. Also included in the peripheral nervous system are all sensory, sympathetic and parasympathetic nerves.
Peritoneal cavity	The potential space between the serous membranes of the parietal peritoneum (lining the inferior diaphragm, abdominal wall, and interior of the pelvis) and the visceral peritoneum (lining the abdominal organs).

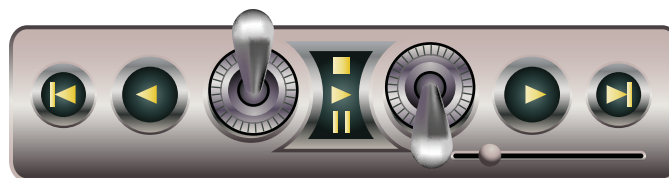


Platelets	Platelets are a normal component of blood which play an essential role in blood clot and thrombus formation by adhering to the site of injury and facilitating the deposition of fibrin fibers. Platelets are formed from fragments of megakaryocytes, cells found in bone marrow.
Pleural cavity	The airless potential space between the pleural membrane reflections. The pleural membrane lines the pleural cavity on the surfaces of the lungs, walls of the thorax, and the diaphragm, which is lubricated with a friction reducing serous secretion to allow the movement of the lungs in the chest cavity.
Pneumatic	Moved or worked by air pressure.
Pneumomediastinum	Free air in the mediastinum (potential space between the lungs) which may give rise to pneumothorax or pneumopericardium and compromise the lungs or heart.
Pneumoperitoneum	A condition in which air or gas is collected in the peritoneal cavity.
Pneumothorax	Free air in the chest outside the lung.
Polyp	A usually nonmalignant growth or tumor protruding from the mucous lining of an organ such as the nose, bladder, or intestine, often causing obstruction.
Pressure	In mechanics, ratio of the force acting on a surface to the area of the surface; it is thus distinct from the total force acting on a surface. A force can be applied to and sustained by a single point on a solid. However, a force can only be sustained by the surface of an enclosed fluid, i.e., a liquid or a gas. Thus it is more convenient to describe the forces acting on and within fluids in terms of pressure. Units of pressure are frequently force units divided by area units, e.g., pounds per square inch, dynes per square centimeter, or newtons (N) per square meter.
Pressure	The action of a force against some obstacle or opposing force; a force in the nature of a thrust, distributed over a surface, often estimated with reference to the upon a unit's area.



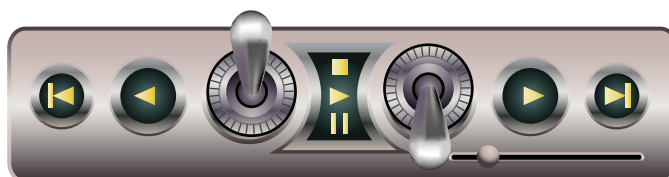


Pressurization system	A mechanical system that can create a high pressure within an airtight structure, such as a hyperbaric chamber.
Prophylax	To guard against disease or injury by observance of preventative measures.
Prophylaxis	To guard against disease or injury by observance of preventative measures.
Proprioception	Neural sensory stimuli of body and limb position, posture, joint movement, equilibrium, and resistance of objects encountered.
Prostaglandin	A biologically active fatty acid component essential for a vast array of intracellular and intercellular metabolic reactions. Their activity is of local effect and typically short in duration which are destroyed enzymatically. Their role is primarily for modulating biochemical behavior of cells.
Pruritis	Severe itching.
Psychological	Directed toward the will or toward the mind specifically in its cognitive function.
Pulmonary	Concerning or involving the lungs.
Purpura	A hemorrhage area in the surface of the skin. The affected area of skin with purpura is greater than 3 millimeters in diameter. The appearance of an individual area of purpura varies with the duration of the lesions. Early purpura is red and becomes darker, then purple, and brown-yellow as it fades. Purpura does not blanch when touched.
Purpura fulminans	A rapidly progressive form, of purpura, a condition characterized by hemorrhages into the skin, mucous membranes and internal organs. Principally occurring in children, of short duration and frequently fatal.
Radiation	The act of using ionizing radiation for diagnostic or therapeutic purposes.
Radiation necrosis	Osteoradionecrosis; death of bone following irradiation.
Radiation therapy	The treatment of disease with radiation.

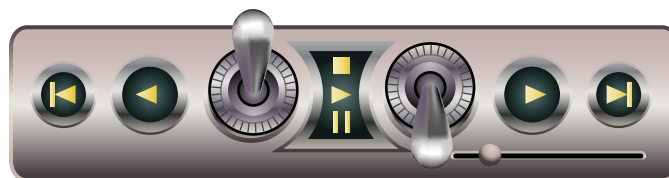




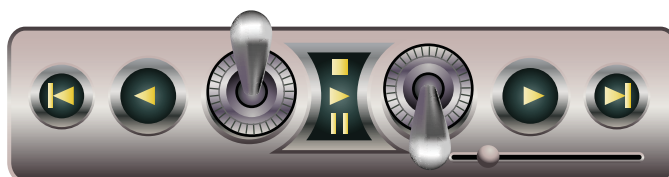
Refractory osteomyelitis	Inflammation of the bone, especially the bone marrow that is resistant to ordinary treatment.
Respiration	The complete act of breathing; inspiration and expiration.
Respiratory	Of, relating to, used in, or affecting respiration.
Rickets	A deficiency disease that affects the young during the period of skeletal growth, is characterized especially by soft and deformed bones, and is caused by failure to assimilate and use calcium and phosphorus normally due to inadequate sunlight or vitamin D.
Rigid	Not flexible or pliant; stiff. Marked by a lack of flexibility.
Round window	A membrane barrier between the air space of the middle ear and the fluid-filled environment of the cochlea. By flexing slightly, the round window functions as a relief pressure valve by abetting to the pressures derived from the mechanical action of the ossicles to the oval window upon the cochlear fluid.
Rupture	The process or instance of breaking open or bursting.
Sarcoidosis	A chronic infiltration of affected organs by T-lymphocytes, mononuclear phagocytes, and granulomas that compromises the normal structure of the tissue.
Scarletiform rash	A reddish rash of the skin resembling the typical rash associated with scarlet fever.
Scotoma	A blind patch in the field of vision.
Scuba diving	SCUBA: Self-Contained Underwater Breathing Apparatus. Diving with a self contained supply of breathable air mixture for sustained underwater activity.
Seizures	A sudden attack of pain, of a disease, or of certain symptoms.
Shearing	To become deformed by forces tending to produce a shearing strain.



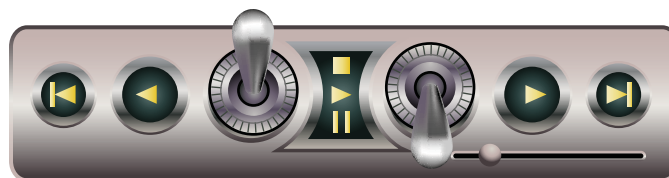
Sickle cell crisis	A condition where sickled cells (abnormal red blood cells) interfere with oxygen transport, obstruct capillary blood flow, and cause severe pain in joints and the abdomen.
Sinus barotrauma	Sinus troubles, particularly with pain, due to changing atmospheric pressures, as when going up or down in a plane. Also called aerosinusitis, barosinusitis, or paranasal sinus barotrauma.
Skin flap	A flap of skin is partially freed from the healthy area in the patient's body; then the loose end is attached to the damaged area. Still fed by its natural blood supply, the flap remains healthy while its cut edge grows into and begins to cover the area of damaged skin.
Skin graft	Replacement of severely damaged skin in one area with healthy skin from another area of the patient's body or from the body of a skin donor. A procedure of cutting a piece of healthy skin and stitching it to the injured area.
Smoke inhalation	The result of breathing in the harmful gases, vapors, and particulate matter contained in smoke.
Soluble	That can be dissolved, especially easily dissolved.
Space medicine	A branch of medicine that deals with the physiological and biological effects on the human body of rocket or jet flight beyond the earth's atmosphere. The principal aim is to discover how well and for how long humans can withstand the extreme conditions encountered in space, and how well they can re-adapt to the earth's environment after a space voyage. The medically significant aspects of space travel include weightlessness, strong inertial forces experienced during liftoff and re-entry, radiation exposure, absence of the earth's day and night cycle, and existence in a closed ecological environment.



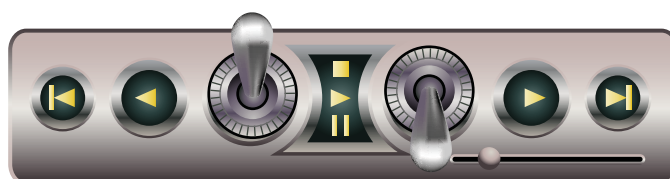
Spinal cord	The part of the nervous system occupying the hollow interior (vertebral canal) of the series of vertebrae that form the spinal column, technically known as the vertebral column. Spinal nerves feed sensory input into the spinal cord, which in turn relays them into the brain. Conversely, motor impulses generated in the brain are relayed by the spinal cord to the spinal nerves, which pass the impulses to muscles and glands. The spinal cord also mediates reflex responses to some sensory impulses directly, without recourse to the brain, as when a person's leg is tapped producing the knee jerk reflex.
Spinal cord injury	Damage to the spinal cord that results from injury; compression of the spinal cord; affects all nervous function that is controlled at and below the level of the injury, including muscle control and sensation.
Stapes	Articulating with the incus and the oval window, the stapes (also known as the stirrup) is the innermost of the three small bones in the middle ear that transmit vibration from the tympanic membrane to the oval window of the inner ear.
Subatmospheric	Less or lower than that of the atmosphere; subatmospheric pressure.
Subcutaneous	Beneath the skin.
Swell	To increase in size or volume as a result of internal pressure; expand.
Symptom	A sign or an indication of disorder or disease, especially when experienced by an individual as a change from normal function, sensation, or appearance.
Syphilis	A chronic contagious usually venereal and often congenital disease caused by a spirochete ( <i>Treponema pallidum</i> ) and if left untreated producing chancres, rashes, and systemic lesions in a clinical course with three stages continued over many years.
TEED scale	A method of diagnosing the severity of middle ear barotrauma, scored from Grade 0 (mild) to Grade V (severe).



Temporal bone	The bones that comprise the base the skull, and occur on both sides, which encase the organs of hearing.
The bends	>Signs and symptoms relating to decompression sickness.
Therapy	Treatment; especially of bodily, mental, or behavioral disorders.
Thermal burn injury	An injury resulting from exposure to heat, electricity, radiation or caustic chemicals. Three degrees of burn are commonly recognized: first degree, second degree and third degree.
Thoracentesis	Large-bore needle puncture of the chest wall to remove fluids from the pleural cavity.
Thrombosis	Development, formation or existence of a blood clot in the vascular system.
Tissue	An aggregation of morphologically similar cells and associated intercellular matter acting together to perform one or more specific functions in the body. There are four basic types of tissue: muscle, nerve, epidermal, and connective.
Toxicity	The extent, quality or degree of being poisonous.
Tuberculosis	A highly variable communicable disease of humans and some other vertebrates caused by the tubercle bacillus and rarely in the U.S. by a related mycobacterium ( <i>Mycobacterium bovis</i> ) and characterized by toxic symptoms or allergic manifestations which in humans primarily affect the lungs.
Two-point tactile discrimination	The ability to locate and discriminate between two points of sensory stimuli on the surface of the skin.
Tympanic membrane	The thin, semitransparent, oval-shaped membrane that separates the middle ear from the external ear which vibrates in response to sound stimuli. This membrane conducts sound energy vibrations to the malleus of the ear ossicles. Also called the tympanum or eardrum.
Tympanometer	A device used to measure sound transmission in the middle ear.



Valsalva maneuver	Exhaling with the nose and mouth closed off, which “clears the ears”, or equalizes air pressure in the middle ear with external air pressure.
Vasculitis	Inflammation of a blood or lymph vessel.
Ventilatory support	Circulation of air into the lungs, assisted by a mechanical device.
Wellness	The quality or state of being in good health especially as an actively sought goal.
White matter	(Substantia alba) The white regions of the central nervous system which is composed mostly of myelinated and unmyelinated nerve fibers.



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